



## Improving Opportunities for Students in Rural Communities

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According to the Colorado Department of Education, 80% of the school districts in Colorado are rural, comprising over 15% of the total student population in the state. Yet students in rural Colorado have limited access to both career and technical (CTE) educators and higher education institutions and deserve the same access to high quality educators as their counterparts in Colorado's urban population centers. A discussion of three policies that could help rural students increase opportunities to advanced coursework and high-quality educators follows.

Improving student access to high quality educators will mean equipping educators with more opportunities to reskill and expand their own knowledge and skills through ongoing professional development opportunities. Some examples of agile educator programs that have recently been unveiled in Colorado include the STEMpath<sup>1</sup> and the computer science professional development program<sup>2</sup>. STEMpath allows educators to participate in graduate-level programs and externships with employers that provide them with skills to teach STEM and computer science.

Teachers who have previously worked in or have advanced degrees in rapidly growing professions such as computer coding, construction, or cybersecurity are well positioned to equip students for future careers in those rapidly expanding industries. Similarly, doors are opened for students to future careers when they take concurrent enrollment coursework from educators at community colleges and universities.

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### **1** Supporting Waivers to Career and Technical Education Teacher Licensure

Currently, teacher licensure requirements can act as a barrier or perceived barrier to having more CTE educators in the classroom. To address this challenge, an opportunity might exist in Colorado's teacher waiver laws so that more industry experts could teach CTE classes. Given the flexibility the federal Every Student Succeeds Act (ESSA) provides states to define teachers as “highly qualified,” Colorado has an opportunity to better clarify who can teach CTE.

<sup>1</sup> <https://www.mymindsparklearning.org/stempath>

<sup>2</sup> <https://www.cde.state.co.us/computerscience/csed-grant>

## **What are the barriers to meeting current CTE certification requirements in small and remote, rural districts?**

First, CTE licenses require a combination of both college coursework and industry experience. Some highly qualified professionals do not have coursework because it is not needed to be competitive in certain fields such as construction. The Colorado Department of Education (CDE) offers the option to review industry credentials or PRAXIS exams in lieu of coursework, but some industry professionals would not have these either because they are not required for employment. Therefore, professionals would have to complete additional coursework or exams to be eligible to teach. Rural teachers who are already licensed may also have an interest in taking relevant CTE coursework, but they are not able to gain the industry work experience needed to be qualified.

## **How can the barriers be mitigated?**

The Colorado State Board of Education could support districts by developing a set of criteria to guide district hiring decisions as opposed to providing a set of prescriptive rules. The criteria could allow districts to decide whether to require both coursework and industry experience, or whether one or the other might suffice. CTE courses are best taught by people with meaningful and relevant work experience, which local school districts are in the best position to assess. A set of criteria would help districts maintain high standards but with the chance to find the best candidates from a particular industry.

## **2 Increasing CTE Instruction at the Employer Site**

Another policy that could provide rural students access to direct CTE instruction would involve allowing employer job sites to count as the CTE “lab” course credit component. Often, in rural Colorado, it can be quite costly for school districts to build technical centers for students to

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participate in career and technical education opportunities. One way to untap student potential is to allow more students to be taught by designated employees at a job site where the students are working. To be qualified to instruct students directly in the business environment, these employees would need to receive some level of professional development training and be “under the direction” of an endorsed CTE instructor for the time the employee of the business is teaching one or more students.

This idea builds from reforms focused on increasing access to agile educators contained

in 2017 computer science legislation, strongly supported by Colorado Succeeds,<sup>3</sup> that authorized a computer science resource bank for all school districts and allowed industry experts in computer science to co-teach courses with a teacher in the classroom.

<sup>3</sup> [https://leg.colorado.gov/sites/default/files/2017a\\_1184\\_signed.pdf](https://leg.colorado.gov/sites/default/files/2017a_1184_signed.pdf)

### **What are the costs of making this policy change?**

The policy relating to empowering more educators to become CTE endorsed does not have a price tag. The CDE might lose some licensure fees, but it would also need to process fewer licenses. The policy enabling employees to be trained to teach students for course credit could be introduced in the legislature as a pilot funded with a limited fiscal note.

### **3 Incentivizing Content Area Master's Degrees**

Students in rural areas would benefit from expanded access to concurrent enrollment courses. While improvements are being made, students in rural districts sometimes still lack access to two-year and four-year institutions. One solution that is gaining traction to overcoming this barrier is for content area teachers to teach concurrent enrollment courses in rural districts. A policy that supports this solution involves incentivizing content area teachers to obtain master's degrees so that they can teach concurrent enrollment courses and, at the same time, be better equipped for deeper learning instruction.

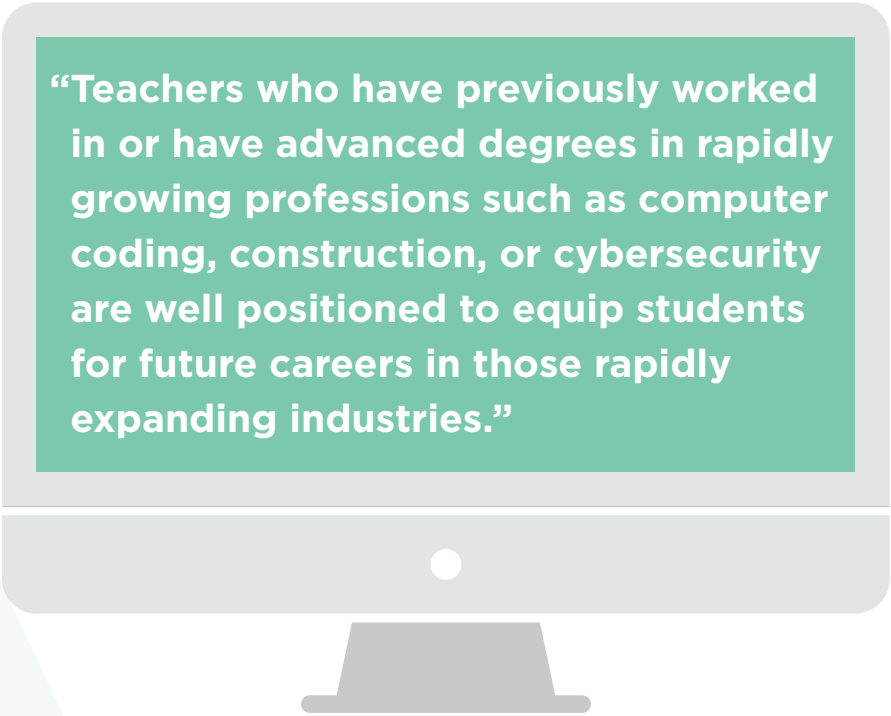
Colorado Succeeds supported this policy idea as an allowable use of the concurrent enrollment pilot program established by Senate Bill 19-176, championed by Senator Paul Lundeen (R) and Senator Jeff Bridges (D). Under the pilot program in the new law, grant money would fund the cost of one or more teachers obtaining a graduate degree in a specific subject so that the teacher could be qualified to teach a postsecondary course to high school students. Similarly, Senate Bill 19-003, another piece of legislation that passed this session, will provide loan forgiveness to teachers with content area master's degrees as an incentive to fill vacancies in certain subject areas such as math and science.

### **What do we know about degree attainment of secondary teachers?**

Most secondary teachers have a master's degree in education, not in a content area - if they have a master's degree at all. Pursuing a content area master's degree is often difficult and expensive, especially for rural teachers. Under current policy, many districts in Colorado do provide a salary step for teachers with an advanced degree, but they do not specify a required area of expertise.

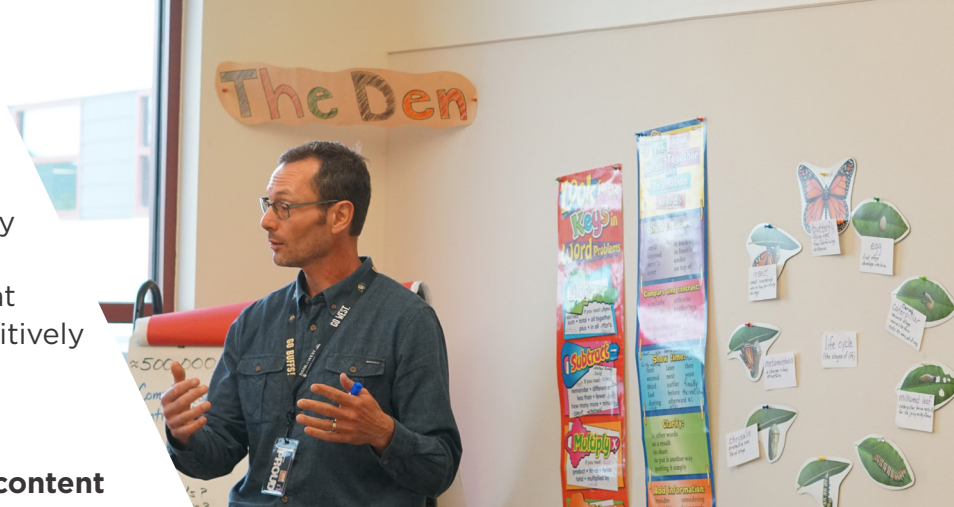
### **How could a content master's degree impact course offerings and teacher quality?**

Advanced degree attainment is a major barrier to schools offering concurrent enrollment courses. Teachers with CTE and STEM content area degrees would be eligible for teaching CTE-related concurrent enrollment classes.



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Teacher efficacy is not correlated<sup>4</sup> with master's degree attainment according to studies where the majority of teachers have degrees in education. However, some studies<sup>5</sup> have found that teacher content area knowledge is positively correlated with student achievement, particularly in math.



### **How could the legislature encourage content specialization among secondary teachers?**

The National Alliance of Concurrent Enrollment Partnerships provides several state models.<sup>6</sup> For example, in Montana, the university system waives the tuition of master's level content coursework for teachers who have education master's degrees.<sup>7</sup> In Wyoming, the legislature sets aside funds to pay the loans of teachers who completed master's level content coursework.<sup>8</sup> Between 2013 and 2015, for instance, the Wyoming legislature appropriated \$250,000 over the two-year period to forgive student loans.<sup>9</sup>

Although these policy initiatives were a step in the right direction, the Colorado legislature could also consider bolder incentives to districts for a higher salary step for teachers who have a content area master's degree than for teachers who have a master's in education. Providing teachers with the chance to obtain a master's degree and earn loan forgiveness would be a win-win as rural students would also reap the rewards with opportunity to earn concurrent enrollment credit hours while in high school.

<sup>4</sup> <https://www.nber.org/digest/aug07/w12828.html>

<sup>5</sup> [https://www.mhec.org/sites/default/files/resources/teacherprep1\\_20170301\\_2.pdf](https://www.mhec.org/sites/default/files/resources/teacherprep1_20170301_2.pdf)


<sup>6, 7, 8, 9</sup> Mobley, K. (2014). Overcoming the shortage of qualified instructors to teach concurrent enrollment courses. National Alliance of Concurrent Enrollment Partnerships. Retrieved from <http://www.nacep.org/overcoming-instructor-shortage/>

## **Conclusion**

One additional solution to helping students in rural Colorado might not be customarily thought of as an education policy - expanding broadband technology to rural Colorado could significantly narrow the current gap in access between urban and rural Colorado students. For example, expanded broadband could allow rural districts to improve access to online college coursework. Additionally, it could allow classes to qualify for the lab component required for some CTE classes by using conferencing technology in rural areas. Expanding broadband could also help teachers seeking to add a CTE credential by enabling them to receive training in STEM or CTE field via online coursework.

### **Questions?**

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